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EXAMINER	
COLUCCI, MICHAEL C	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/726,102	AGAPI ET AL.	
	Examiner	Art Unit	
	MICHAEL C. COLUCCI	2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on *08/12/2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *24 and 25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *24 and 25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 08/12/2010 have fully considered but they are not persuasive. Examiner will try to clarify the interpretation of the prior art in view of the claim language.

Argument (page 6 ¶ 6 and page 7 ¶ 1 (& similarly ¶ 4)):

- "The Assignee respectively points out that not only do these three prompts fail to have the required relationships of the first, second and third prompts recited in the claims, the remaining limitations in the claims are not even addressed. Initially, the Assignee addresses the parenthetical statements in the Response to Arguments provided in connection with Prompt 1 and Prompt 2. Specifically, after Prompt 2, the Office Action states "In vocabulary?" in parentheses and after Prompt 3, the Office Action states "Initially not in vocabulary" in parentheses. It is both unclear what the Office Action is trying to express and how it applies to the claims"

- "In connection with Prompt 3, it is entirely unclear what the Office Action is trying to indicate by the parenthetical statement "Initially not in vocabulary." Prompt 3 is provided when "no response is received within a predetermined time out" (column 2, lines 4-5). This prompt has absolutely

nothing to do with whether a user response is part of any vocabulary, grammar or anything else. While it remains unclear what exactly these statements have to do with the claims, the Assignee points out that the whatever the intent, the statement themselves are not correct"

Response to argument:

Consider the following limitation(s):

Limitation 1: "adding a representation of a first prompt to the call flow representation in response to at least one designer instruction, received via the user interface, to add the first prompt, the first prompt being defined to solicit a response from a user of the speech recognition application call flow"

Limitation 2: "adding a representation of a second prompt to the call flow representation in response to at least one designer instruction, received via the user interface, to add the second prompt, the second prompt to be provided to the user should the user respond to the first prompt with one of the valid responses defined in the at least one grammar"

Limitation 3: "adding a representation of a third prompt to the call flow representation in response to at least one designer instruction, received via the user interface, to add the third prompt, the third prompt to be provided to the user should the user respond to the first prompt with the response option"

After further review of Ehsani, Examiner believes that Ehsani in fact teaches **Limitations 1-3** ([0222] & Fig. 4), without the use of a designer user interface. Examiner believes that Marx alleviates this by teaching a graphical user interface for call flow design that a user can *visually observe*. Though Ehsani teaches call flow design, Marx teaches actual icon based call flow design, which examiner believes to be consistent with the present invention. Shown below is Fig. 7 of Marx, which is later applied to Ehsani's adding a representation of a first, second, and third prompt to the call flow representation (Fig. 4)

"in response to at least one designer instruction, received via the user interface"

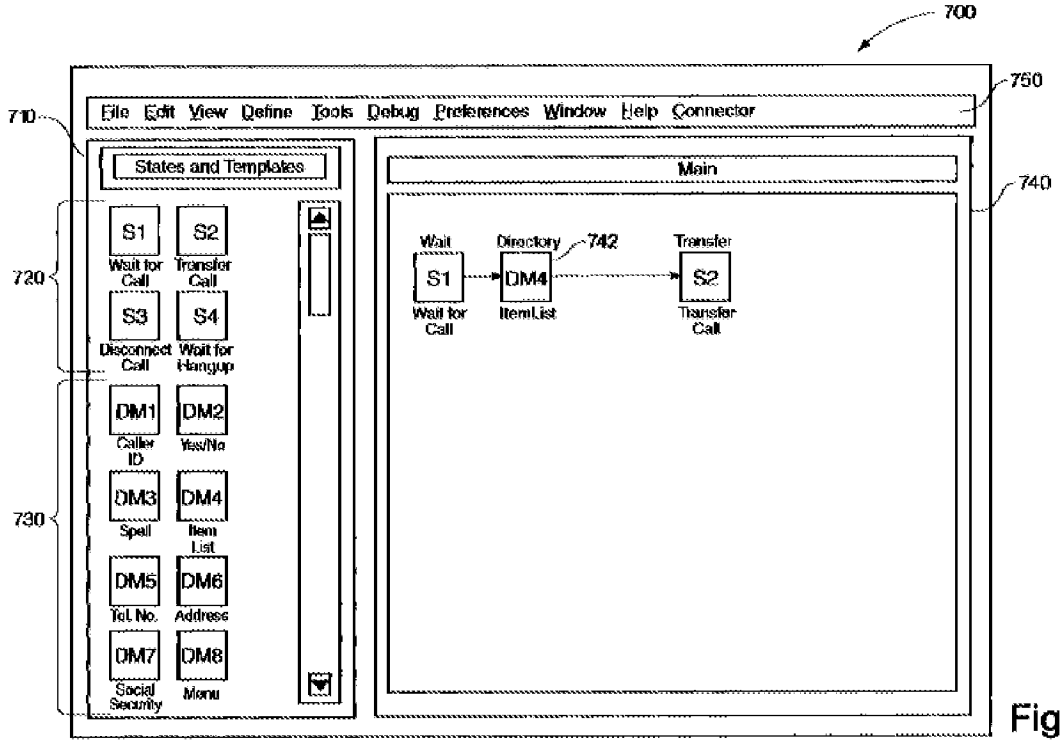

Fig. 7

With respect to **Limitations 1-3,** Consider Fig. 4 of Ehsani, which teaches 2 distinct paths that can be achieved. Path 1 below demonstrates **Limitation 1 and Limitation 2**, that is

"adding a representation of a first prompt to the call flow representation in response to at least one designer instruction, received via the user interface, to add the first prompt, the first prompt being defined to solicit a response from a user of the speech recognition application call flow" *observed at "prompt 1" below and*

"second prompt to be provided to the user should the user respond to the first prompt with one of the valid responses defined in the at least one grammar" *observed at "prompt 2" below.*

Additionally, there is list of "one of the valid responses defined in the at least one grammar" as shown below at "valid responses".

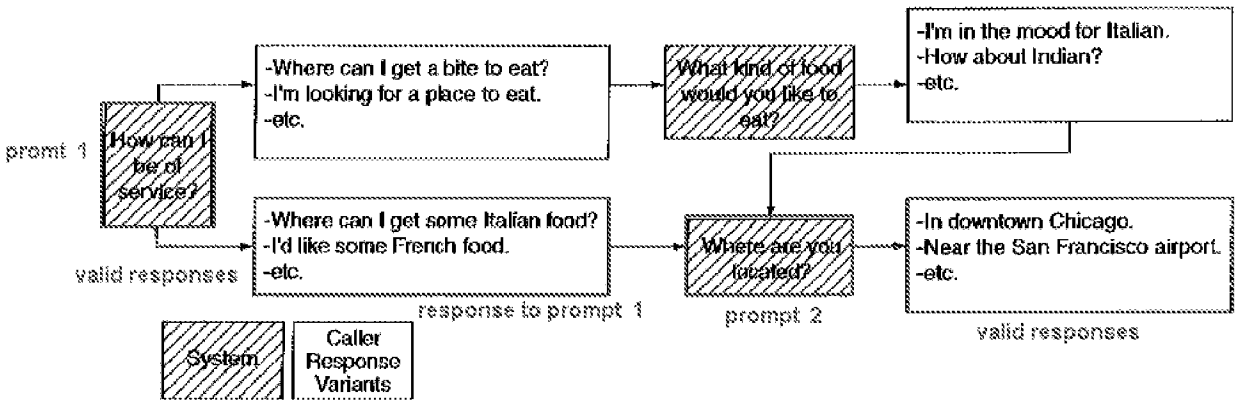

FIG. 4 Path 1

Focusing on **Limitation 3**, it is clear that Ehsani teaches "the third prompt to be provided to the user should the user respond to the first prompt with the response

option" as shown in path 2 below. A user responds to a first prompt, and a third prompt is provided. The claim language in **Limitation 3** does not exlude the use of a second prompt. Therefore, Ehsani teaches "the third prompt to be provided to the user should the user respond to the first prompt with the response option" as shown in path 2 below with the inclusion of prompt 2.

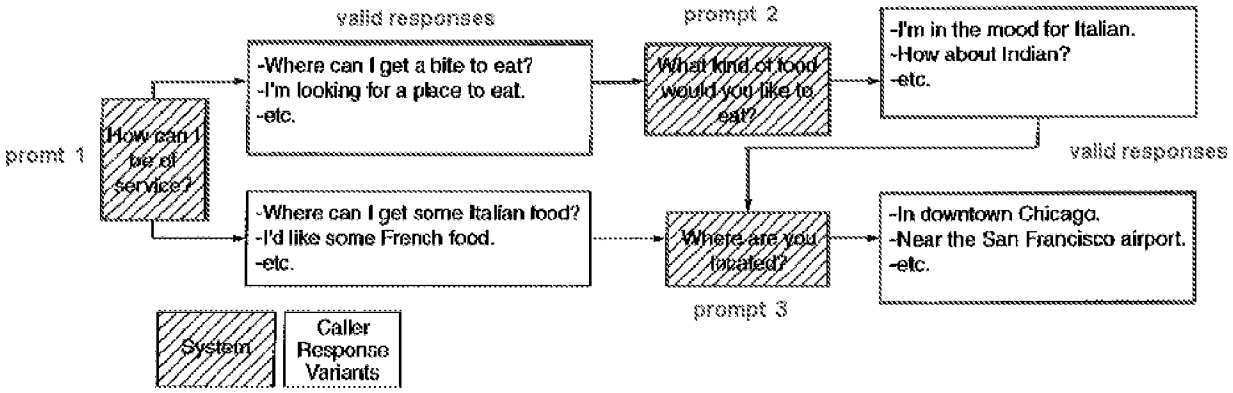

FIG. 4 Path 2

Argument (page 8 ¶ 1 and ¶ 3):

- "Second, claim 24 further requires that the third prompt be provided "should the user respond to the first prompt with the response option" (emphasis added). The response option is recited as "defining a valid response to the first prompt." Not responding (i.e., no user response as in Marx) is not a valid response to the first prompt. Indeed, it is precisely because the user does not respond with a valid response to Prompt 1 that Prompt 3 is provided. This is entirely opposite of what is required by the

claims. Accordingly, Prompt 3 does not read on the third prompt for this additional reason"

- "Accordingly, Prompt 1, Prompt 2 and Prompt 3 do not meet the requirements of the first, second and third prompts as required by claim 24. Specifically, Prompt 3 does not have the required relationship with Prompt 1 and Prompt 2 required by claim 24 for at least the reasons discussed above, and Marx therefore does not disclose or suggest each limitation in claim 24. No prompts, grammars or responses in Ehsani can cure these deficiencies as such elements would have absolutely no relationship to Prompt 1, Prompt 2 or Prompt 3"

Response to argument:

Examiner *does* agree that Ehsani fails to teach "automatically generating the speech recognition application call flow from the call flow representation such that if the response option is defined as a valid response in the at least one grammar the third prompt is presented to the user instead of the second prompt when the user responds to the first prompt with the response option"

In this instance, "prompt 2" is in fact *not* included in the presentation of prompt 3, and for this Examiner incorporates Marx. Below (as shown in the previous office action) Marx demonstrates the modification of Ehsani's Fig. 4 by presenting a binary response such as yes/no or rather a response that is very direct prior to implementing sequential prompts. This type of prompt allows for the omission of Ehsani's prompt 2. For instance, Consider Ehsani, the system could simply ask the user for the name of the

restaurant if the user knows the name instead of presenting a second prompt (when a valid response is present).

With respect to valid grammar, Ehsani teaches this limitation. However, Marx also teaches variations of response by accepting forms of grammar, that is Marx teaches for example, an ItemList Module 520 accesses a customized recognized vocabulary having entries that identify people recognized by the Service 410. In the example of FIG. 1, the recognized vocabulary corresponds to employees of Company A along with an operator and/or names of departments (e.g., sales, customer service, etc.). This customized vocabulary will typically be implemented by the application developer to recognize an employee not only by full name, but also by other names by which the employee could be recognized, such as just a last name, just a first name, or a nickname, perhaps combined with a last name. For example, if an employee is named Michael A. Smith, the database should recognize not only "Michael Smith," but also other names by which a caller is likely to identify that employee, such as "Mike Smith," "Michael," "Mike," and "Smith." (Marx Col. 8 line 64 – Col. 9 line 14).

NOTE: The present invention teaches conditional prompts and responses in the same manner as the combination of Ehsani and Marx.

For example, consider the modification of the open ended prompts of Marx applied to Ehsani which can combine prompts to save time.

Prompt 1 - How can I be of service? (Ehsani)

Response 1 - Where can I get a bite to eat? (Ehsani)

** Prompt 3 - If you know the name of the place you wish to eat, please say the name now. Otherwise say "no" :*

Response 2 – (User says name of place to eat) (Ehsani)

Therefore, it would have been obvious to modify Ehsani to include “automatically generating the speech recognition application call flow from the call flow representation such that if the response option is defined as a valid response in the at least one grammar the third prompt is presented to the user instead of the second prompt when the user responds to the first prompt with the response option” wherein a GUI is provided ti visually see call-flow icons and to provide a more open ended question to save time and memory, wherein Marx presents a direct question to obtain a valid response immediately to provide fast information to a user, wherein saving one step improves the system of Ehsani by implementing a yes/no question to smoothly continue Ehsani’s operation in the instance a user does not know a precise response to a prompt (Marx Col. 1 lines 30-67).

Prompt 1:

"If you know the name of the person you wish to speak to, please say the first name followed by the last name now. If you would like to speak to an operator, please say `Operator` now."

The application then waits for a response from the caller (130) and processes the response when received (140). If the caller says, for example, "Mike Smith," the application must be able to recognize what the caller said and determine whether there is a Mike Smith to whom it can transfer the call. Robust systems should recognize common variations and permutations of names. For example, the application of FIG. 1 may identify members of a list of employees of Company A by their full names--for example, "Michael Smith." However, the application should also recognize that a caller asking for "Mike Smith" (assuming there is only one employee listed that could match that name) should also be connected to the employee listed as "Michael Smith." Assuming the application finds such a person, the application outputs a confirming prompt:

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ehsani et al. US 20020032564 A1 (hereinafter Ehsani) in view of Marx et al. US 6173266 B1 (hereinafter Marx).

Re claims 24 and 25, Ehsani teaches a method for generating a speech recognition application call flow from a call flow representation of the speech recognition application call flow specified by a designer using a user interface provided by a call flow design application executed on a computer configured to allow the designer to create the call flow representation ([0221]) by allowing the user to specify elements of the call flow via the user interface, the method comprising:

adding a representation of a first prompt to the call flow representation in response to at least one designer instruction, received via the user interface by the call flow design application executed on the computer, to add the first prompt, the first prompt being defined to solicit a response from a user of the speech recognition application call flow ([0213]);

adding a representation of a response option to the call flow representation in response to at least one designer instruction, received via the user interface by the call flow design application executed on the computer, to add the response option in association with the first prompt, the response option defining a valid response to the first prompt ([0215], consecutive multiple prompts dependent on preceding prompts, “his/her name, address, credit card number, and upon successful completion of these items ask the user to say the title of the book he/she is looking for”);

However, Ehsani fails to teach

adding a representation of at least one grammar, selected by the designer from a list of existing grammars, to the call flow representation in response to at least one designer instruction, received via the user interface by the call flow design application executed on the computer,

to add the at least one grammar in association with the first prompt, the at least one grammar defining valid responses to the first prompt ([0222] & Fig. 4)

adding a representation of a second prompt to the call flow representation in response to at least one designer instruction, received via the user interface by the call flow design application executed on the computer,

to add the second prompt, the second prompt to be provided to the user should the user respond to the first prompt with one of the valid responses defined in the at least one grammar ([0222] & Fig. 4)

adding a representation of a third prompt to the call flow representation in response to at least one designer instruction, received via the user interface by the call flow design application executed on the computer,

to add the third prompt, the third prompt to be provided to the user should the user respond to the first prompt with the response option ([0222] & Fig. 4)

automatically generating the speech recognition application call flow from the call flow representation such that if the response option is defined as a valid response in the at least one grammar the third prompt is presented to the user instead of the second prompt when the user responds to the first prompt with the response option

Marx teaches a user interface for the design and implementation of a call flow (Fig. 7) having a set of parameters and recognized vocabularies (Fig. 8), wherein Marx teaches well known uses of call flow designs having multiple prompts, where Marx teaches an application that outputs an audible speech signal to the caller by, for example, playing a prerecorded prompt or using a speech generator such as text-to-speech converter: "If you know the name of the person you wish to speak to, please say the first name followed by the last name now. If you would like to speak to an operator, please say `Operator` now." The application then waits for a response from the caller (130) and processes the response when received (140). If the caller says, for example, "Mike Smith," the application must be able to recognize what the caller said and determine whether there is a Mike Smith to whom it can transfer the call. Robust systems should recognize common variations and permutations of names. For example, the application of FIG. 1 may identify members of a list of employees of Company A by their full names--for example, "Michael Smith." However, the application should also recognize that a caller asking for "Mike Smith" (assuming there is only one employee listed that could match that name) should also be connected to the employee listed as "Michael Smith." Assuming the application finds such a person, the application outputs a confirming prompt: "Do you mean `Michael Smith`?" (150). The application once again waits to receive a response from the caller (160) and when received (170), takes appropriate action (180). In this example, if the caller responded "Yes," the application might say "Thank you. Please hold while I transfer your call to Michael Smith," before taking the appropriate steps to transfer the call. FIG. 2 shows some of the steps that

are performed for each interactive step of the interactive application of FIG. 1. Specifically, applying the process of FIG. 2 to the first interaction of the application described in FIG. 1, the interactive speech application outputs the prompt of step 120 of FIG. 1 (210). The application then waits for the caller's response (220, 130). This step should be implemented not only to process a received response, as shown in the example of FIG. 1 (140), but also to handle a lack of response. For example, if no response is received within a predetermined time, the application can be implemented to "time out" (230) and reprompt the caller (step 215) with an appropriate prompt such as "I'm sorry, I didn't hear your response. Please repeat your answer now," and return to waiting for the caller's response (220, 130) (Marx Col. 1 lines 30-67).

Further, Marx improves these well known limitations by teaching call flow design using a call flow interface whereby valid user responses based on a vocabulary database and yes/no module are defined (Marx Col. 18 lines 47-56).

Marx also teaches for example, an ItemList Module 520 accesses a customized recognized vocabulary having entries that identify people recognized by the Service 410. In the example of FIG. 1, the recognized vocabulary corresponds to employees of Company A along with an operator and/or names of departments (e.g., sales, customer service, etc.). This customized vocabulary will typically be implemented by the application developer to recognize an employee not only by full name, but also by other names by which the employee could be recognized, such as just a last name, just a first name, or a nickname, perhaps combined with a last name. For example, if an employee is named Michael A. Smith, the database should recognize not only "Michael

Smith," but also other names by which a caller is likely to identify that employee, such as "Mike Smith," "Michael," "Mike," and "Smith." (Marx Col. 8 line 64 – Col. 9 line 14).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Ehsani to incorporate adding a representation of at least one grammar, selected by the designer from a list of existing grammars, to the call flow representation in response to at least one designer instruction, received via the user interface by the call flow design application executed on the computer, to add the at least one grammar in association with the first prompt, the at least one grammar defining valid responses to the first prompt, adding a representation of a second prompt to the call flow representation in response to at least one designer instruction, received via the user interface by the call flow design application executed on the computer, to add the second prompt, the second prompt to be provided to the user should the user respond to the first prompt with one of the valid responses defined in the at least one grammar, adding a representation of a third prompt to the call flow representation in response to at least one designer instruction, received via the user interface by the call flow design application executed on the computer, to add the third prompt, the third prompt to be provided to the user should the user respond to the first prompt with the response option, and automatically generating the speech recognition application call flow from the call flow representation such that if the response option is defined as a valid response in the at least one grammar the third prompt is presented to the user instead of the second prompt when the user responds

to the first prompt with the response option as taught by Marx to allow for a call flow design application that can handle generic response such as yes/no as well as specific grammar responses and prompts in the same instance, wherein multiple prompts can take place depending on the selected designer vocabulary and dialog modules, such as employee name, company name, yes/no, and as a last resort live communication with an operator (Marx Col. 8 line 64 – Col. 9 line 14), wherein a GUI is provided ti visually see call-flow icons and to provide a more open ended question to save time and memory, wherein Marx presents a direct question to obtain a valid response immediately to provide fast information to a user, wherein saving one step improves the system of Ehsani by implementing a yes/no question to smoothly continue Ehsani's operation in the instance a user does not know a precise response to a prompt (Marx Col. 1 lines 30-67).

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL C. COLUCCI whose telephone number is (571)270-1847. The examiner can normally be reached on 8:30 am - 5:00 pm , Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on (571)-272-7602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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